

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number  
**WO 2005/015413 A1**

(51) International Patent Classification<sup>7</sup>: **G06F 13/00**

(21) International Application Number:  
**PCT/US2004/025398**

(22) International Filing Date: 6 August 2004 (06.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/493,430 6 August 2003 (06.08.2003) US  
60/500,499 5 September 2003 (05.09.2003) US

(71) Applicant (for all designated States except US): **NOKIA CORPORATION [FI/FI]**; Keilalahdentie 4, FI-02150 Espoo (FI).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ZHENG, Haihong**

[CN/US]; 136 Bricknell Lane, Coppell, TX 75019 (US).  
**GREIS, Marc** [DE/US]; 7919 North Glen Drive, #4029, Irving, TX 75063 (US).

(74) Agent: **SMITH, Harry, F.**; Harrington & Smith, LLP, 4 Research Drive, Shelton, CT 06484-6212 (US).

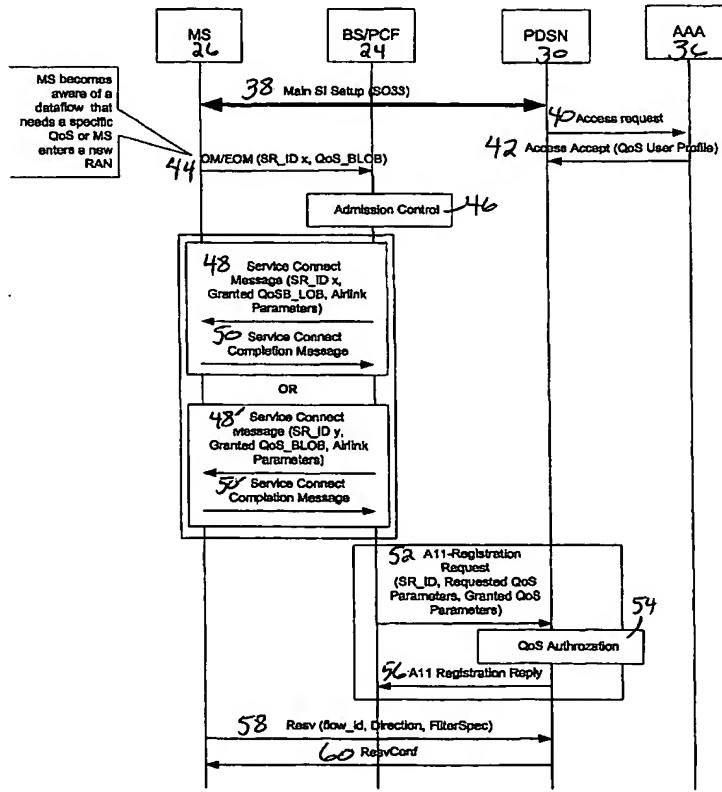
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

*[Continued on next page]*

---

(54) Title: QUALITY OF SERVICE SUPPORT AT AN INTERFACE BETWEEN MOBILE AND IP NETWORK



(57) Abstract: A signaling regimen between a mobile station MS, a radio node RN, and a packet data switching node PDSN enables a quality parameter to be applied to packets moving between a mobile and a CDMA2000 network. The MS creates a new flow for packets of a certain data type and sends a related quality parameter for that flow to the BS. The BS determines whether an existing or new service instance will carry the new flow, and obtains authorization for the service instance to meet the quality parameter from the PDSN. The BS or PDSN builds a map between flow and a policy that ensures the quality is met, and the map is used to place different packets into the appropriate flow and service instance. Policies and enforcement may differ on uplink and downlink.



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.